



CONSTRUCTION EQUIPMENT

TRIPLE M METAL 390113 VOLVO L260 1233 - DIESEL ENGINE



Sample No: VCP391542
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 390113



SAMPLE INFORMATION

Sample Number	VCP391542	VCP380079	VCP430007	VCP380130
Sample Date	11 Jan 2024	04 Dec 2023	12 Oct 2023	28 Aug 2023
Machine Hours	8278	7547	0	921
Oil Hours	0	0	2000	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ABNORMAL	SEVERE	SEVERE	NORMAL

STRONGCO EQUIPMENT (CE)

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 Burlington, ON
 CA L7L 4Y1
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OIL CONDITION

Visc @ 100°C	cSt	12.9	12.4	12.5	12.7
Oxidation (PA)	%	83	87	84	76



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.2	0.2	0.2
Nitration (PA)	%	55	62	61	59
Sulfation (PA)	%	63	62	63	63
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	4	4	7	6
Sodium	ppm	3	3	3	3
Potassium	ppm	<1	0	<1	1



WEAR METALS

Iron	ppm	12	22	20	18
Copper	ppm	<1	2	2	4
Lead	ppm	<1	<1	<1	<1
Tin	ppm	0	<1	<1	<1
Aluminum	ppm	3	3	3	2
Chromium	ppm	2	3	3	3
Molybdenum	ppm	38	39	40	38
Nickel	ppm	5	8	9	6
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	<1	0
Manganese	ppm	0	0	0	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1672	1577	1710	1652
Magnesium	ppm	491	484	501	493
Zinc	ppm	1035	1023	1072	1063
Phosphorus	ppm	910	835	910	935
Barium	ppm	0	<1	<1	0
Boron	ppm	28	24	22	19

Diagnosis

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Nickel ppm levels are abnormal. Exhaust valve wear is indicated. Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Depot: VOLVO0252
Unique No: 5709587
Signed: Kevin Marson
Report Date: 15 Jan 2024

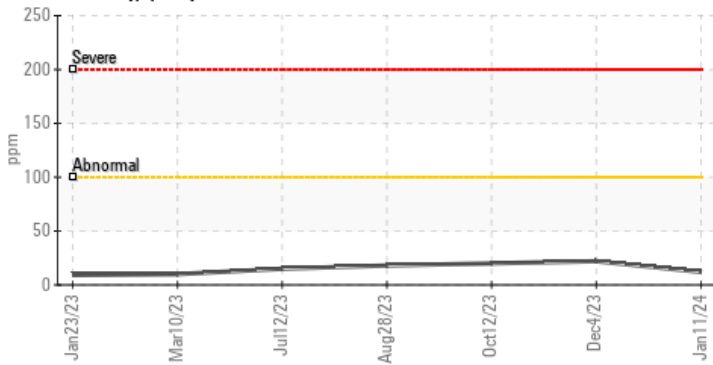


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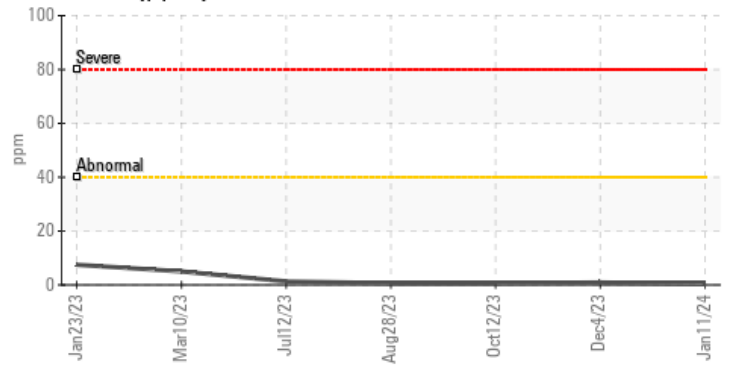


GRAPHS

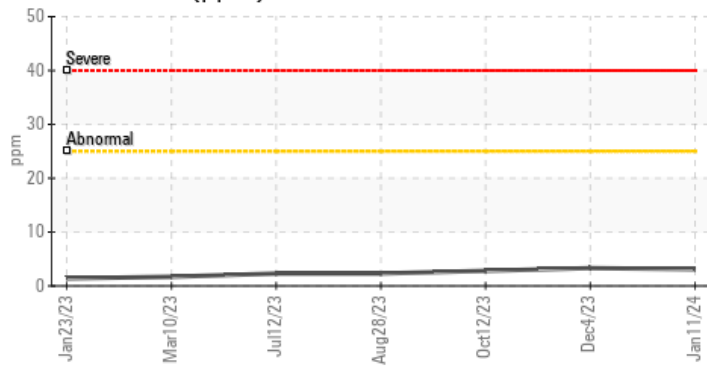
Iron (ppm)



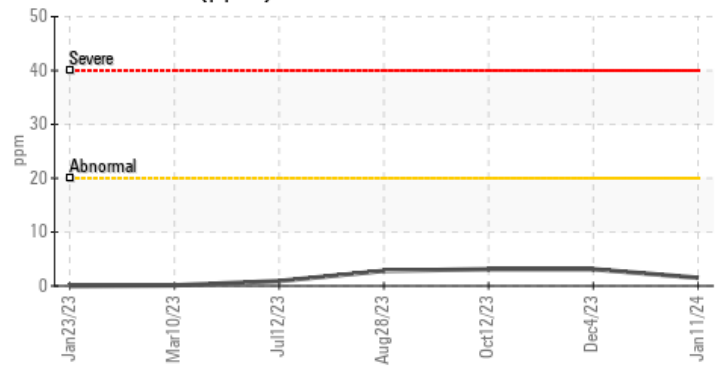
Lead (ppm)



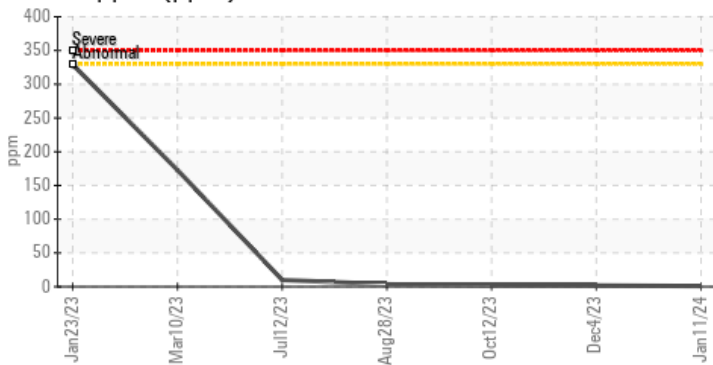
Aluminum (ppm)



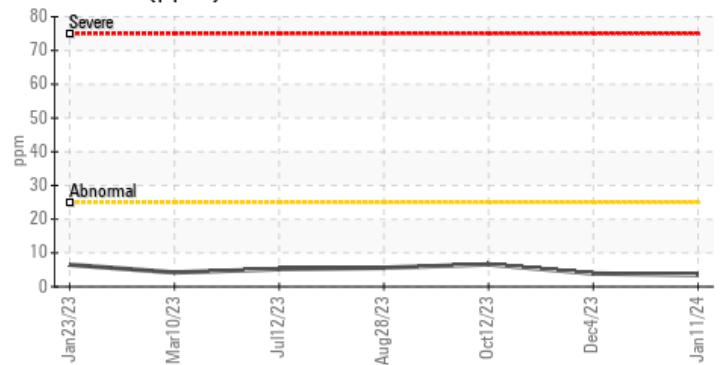
Chromium (ppm)



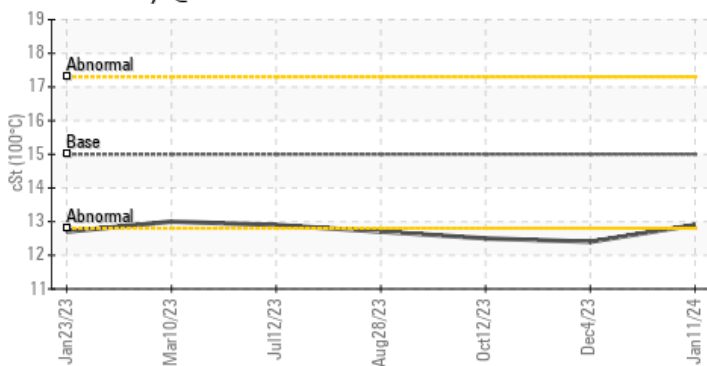
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Soot %

